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Acoustic waves in multifractional gas mixture with the inclusion of different materials and dimensions without Phase Transformations

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Abstract

© Published under licence by IOP Publishing Ltd. The propagation of acoustic waves in mixtures of gas and particle fractions of different materials and sizes is studied. A mathematical model is presented, the dispersion equation is obtained, dispersion curves are calculated. The influence of the particle size and the parameters of the dispersed phase for multifractional gas mixture with ice particles, aluminum and sand on dissipation and dispersion of sound waves is analyzed. A comparison with experiment is conducted.

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